Berg does not disclose a project management system but rather a prior art workflow system. Berg describes a workflow system with workflows as illustrated in Figure 4 where the steps are related by a directed flow. Berg column 4 lines 5-13 describes "Like a flow diagram, a workflow describes the steps in a process and the dependency among the steps. Each step is a task to be performed in the process. A workflow definition can include the description of the desired behavior when a step is executed and a description of the step dependencies in terms of other steps and data. A step dependency can include the state of one or more steps and/or the state or value of one or more data variables." The "dependency" as disclosed by Berg is used to determine the behavior of a step not the execution sequence of the steps (column 9 lines 18-35). The functions of dependencies are illustrated in Figures 9, 10, 11, and 12 where the elements of a step are executed based on external conditions defined in the dependencies. Berg Column 11 lines 27-30 and Figure 5 describe "As part of the definition of a step, a designer can define a dependency relationship for the step. Step dependencies are all the conditions that must be satisfied before for a user can execute a step." Berg Column 11 lines 44-56 describe a "start-finish" dependency where a step does not start unless another step has completed. This dependency controls the start of the specified step not the sequence of execution of the step. In Berg, the ordering of the steps is determined by the workflow not dependencies. Berg does not describe a system where the next step is determined by searching all steps for a start-finish dependency matching the completion of the just completed step.

Berg does not disclose a system where the tasks may be re-ordered or re-scheduled, "re-planned", as in a project management system.

Berg column 10 lines 58-63 provides conditional branching in the workflow as in many prior art workflow systems. This is not re-ordering or re-planning.

Note that the use of the word "dependency" in Berg referrers to conditions to execute a step. In the present invention, "connection" referrers to the task to task relationship among tasks to describe possible task execution sequences where the project management system determines the optimal connections to complete all of the tasks. One of the powerful capabilities of the project management system is "re-planning", changing the scheduling of tasks and sequence of tasks to accommodate for actual task

execution durations or other resource constrains that are different from the planned durations or resources and assessing the impact on the critical path. Berg does not disclose task re-ordering or re-scheduling, "re-planning", as in a project management system. The re-planning feature of project management systems is described in paragraph [0005], [0028], and the Abstract of the present invention.

2) Berg provides for the entry of preferred start and finish time (Berg Column 22 lines 47-59)

Berg provides for the entry of preferred start and finish time but does not provide a system that uses this data other than for comparison with actual data as collected by prior art workflow systems. Berg does not determine the next step to execute based on start and finish time. In Berg Column 22 lines 55-59, "When these or other types of constraints are specified, the workflow manager can generate 'actual vs. baseline data', and this data can be exported to project management programs such as Microsoft Project, MacProject, and AutoPlan II.", describes use of an external project management system. With Berg, while exporting the actual vs. baseline data to the project management system can provide a display of project progress, in this usage, the project management system is not used for planning or re-planning the workflow for execution in the workflow system as disclosed in the present invention. A project management system provides functions to "re-plan" based on the actual data. Berg only provides a comparison of planned vs. actual.

3) Berg does not provide a function to determine the critical path and to compute the time to complete the critical path (column 10 lines 58-63, column 11 lines 43-57, and column 22 lines 47-59). Column 10 lines 58-63 describes a prior art workflow conditional branch. Berg does not provide a function that calculates the critical path by taking both branches and determining which branch is on the critical path. Column 11 lines 43-57 describes possible types of dependencies between steps to control the behavior of the step with the dependency. Berg uses the workflow to specify the flow of the steps and does not use dependencies to specify the step to step relationship. The Berg dependencies are NOT the task dependencies specified in a project management

system. Berg does not provide a function that calculates the critical path based on the dependencies. Column 22 lines 55-59 describes that the actual time and scheduled time from Berg may be exported into a REAL project management system. The lack of detail in this sentence is discussed in the next section.

Berg does not provide a function to determine the critical path and compute the time for the critical path.

Berg does not teach the manipulation of the start and finish sequencing of steps so the set of steps is completed in optimal time.   Berg does not teach changing the workflow to change the sequence of steps to optimize the time.

The art to determine the critical path, compute the critical path, and optimize the critical path are encapsulated in project management systems. Berg does not provide these functions. Berg does not provide the data for project management. Specifically, the "dependencies" as defined by Berg are not the same as the task to task relationships in a project management system. Yes, it is possible to redefine Berg and add these functions to Berg as it is possible to add these functions to any other program by adding and redefining variables and inclusion of code implementing a project management system but Berg does not have the variables and these functions or describe or suggest that these may be added. Berg realizes that these functions are in project management systems and not in Berg.

Also, as describe later, just adding project management function without defining the relationship of tasks to workflow steps is not sufficient. Stating "add well known project management functions to Berg" is like saying, "add wings to my body and I can fly". Berg is not a project management system and does not suggest that it is.

4) Summary for Claim 41 – Berg does not describe a project management system, a project management/workflow system or the relationship of a workflow to a project management system (other than a sentence [column 22 lines 55-59] stating that the results can be uploaded to a project management system).

Berg, McCallum, and Newman the inventors of Berg and authors of the description have significant understanding of workflow systems and knowledge of project management systems. Berg, McCallum, and Newman have more than "ordinary skills". They

acknowledge that the Berg invention or the Berg description is not of a project management system as described in Berg Column 22 lines 55-59, "When these or other types of constraints are specified, the workflow manager can generate 'actual vs. baseline data', and this data can be exported to project management programs such as Microsoft Project, MacProject, and AutoPlan II."

In this one sentence, Berg does not describe the relationship of the steps in the workflow to the tasks in the project management system. Are these one to one? Many to one? Berg does not describe the effect of re-planning and the changes to date and task relationships. Berg does not describe how the workflow is changed as a result of changes in the project management system. Berg does not describe or suggest the present invention.

The present invention provides the full project management system functions and tracking of the tasks to fulfill the task tracking deficiencies of prior art project management systems. The present invention describes the relationship between the steps in the route and the tasks in the project management system. The present invention describes how the workflow is changed as the result of a re-plan in the project management system. Note that the schedule time and actual time are not in the workflow of the present invention since these are in the project management system and reported by the workflow element.

The launching of a workflow by the project management system and notification of completion can be real time but not limited to real time since batch processing on a timely basis can be also effective. The use of e-mail or XML messages for initiating a workflow and notification of completion is disclosed.

5) Per Claim 42, the dependencies in Berg (column 11 lines 44-56) controls the start of the step with the dependency and not the sequence of the steps. The "start-finish" dependency is not used to determine the next step to execute rather the sequence is determined by the workflow. Berg is not a project management system and does not describe the starting of a task to the starting of a route.

6) Per Claim 43, Berg does not disclose re-ordering of steps in a workflow based on a re-ordering of the tasks in the project management system. Berg does not teach

changing the workflow or even the dependencies based on a re-ordering of tasks. Re-ordering of steps is not the same as re-labeling the steps. Again, the dependencies in Berg (column 11 lines 44-56) control the start of the step and not the sequence of the steps. The Berg workflow controls the sequence. Berg is not a project management system.

7) Per Claim 44, Berg is NOT a project management system as admitted by Berg and discussed at great length.

8) Per Claim 46, Berg is not a project management system.

9) Per Claim 47, Berg is not a project management system. Berg does not describe the relationship between the steps in the workflow and the project management tasks. In the present invention, completion of a step in a multi-step route is an indicator of partial completion of a task in the project management system as represented by the step. The Berg workflow can report partial completion of a step providing a communication mechanism (column 12 lines 24-31) where the design tool can report partial completion but relies completely on the design tool to report. Berg servers only as a pass through reporting mechanism.

10) Per Claims 48-51, 53-54, 55-57, and 59-60, Berg column 2 lines 42-53 and column 4 lines 4-29 describe a workflow system with steps that encapsulate design tool processes where each step is provided dependencies to control the execution of that step. In Berg, the sequence of the steps is defined by the workflow not the dependencies. As discussed in length, a "start-finish" dependency or "preferred start – finish" time are not used to determine the next step in Berg. Berg does not provide the functions to determine the critical path, compute the time for the critical path, and optimize the critical path. Berg is not a project management system or a combined project management/workflow system. Berg is a prior art workflow system.

11) Per Claims 45, 52, and 58, Berg is not a project management system. Assigning a user in Berg does not assign the user for a task in the project management system. Berg column 22 lines 55-59 do not describe the relationship between steps in the workflow and the tasks in the project management system. In the present invention, a task may have a route with multiple steps and the user assigned to the task is assigned as the user for the steps in the route. Berg does not teach assigning a user to a task in

the project management system assigns the user to the steps in the workflow related to the task.

SUMMARY

Berg is not a project management system or a project management/workflow system.

1) In Berg, the sequence of steps is defined by the workflow and not the dependencies. The dependencies in Berg do not serve the same function of dependencies in a project management system.

2) Berg does not provide a function to determine the critical path and compute the time for the critical path.

3) Berg does not teach the changing of the sequencing of steps to complete the set of steps in optimal time.

4) Berg does not teach project planning or re-planning.

5) Berg discloses exporting start-finish and other data to a project management system for reporting. But does not describe the relationship of tasks in the project management system to steps in the workflow or changes to the workflow if changes are made to the ordering of tasks in the project management system.

Berg does not teach, suggest, or anticipate the present invention.

Claims are grouped 41-47, 48-54, 55-60 where claims 41, 48, and 55 are independent claims.

Respectfully Submitted

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